RECORD HOT SUMMER OF 2012 OVER SOUTHWEST LOWER MICHIGAN

The summer of 2012 will be remembered for record heat and drought. At Grand Rapids and Muskegon this was the second hottest summer on record. Lansing experienced its third hottest summer on record. The hottest weather began on the 15th of June, when the first string of days with highs in the 90s began, and continued through the 4th of August when the last of the strings of days with highs in the 90s occurred. July was by far the hottest of the three summer months. This was the first summer since 1988 at many locations in which the high temperature reached or exceeded 100 degrees.

Grand Rapids Top 10 Warmest Summers

Rank	Value Date	
1	**74.6**	**1921**
2	**73.6**	**2012**
3	**73.4**	**1901**
4	**73.3**	**1933**
5	**73.2**	**2010**
6	**73.2**	**1934**
7	**73.2**	**1931**
8	**73.2**	**1919**
9	**72.8**	**1955**
10	**72.8**	**1936**

Lansing Top 10 Warmest Summers

Rank	Value Date	
1	**73.7**	**1955**
2	**72.8**	**2005**
3	**72.6**	**2012**
4	**72.5**	**2010**
5	**72.1**	**1921**
6	**71.8**	**1949**
7	**71.5**	**1988**
8	**71.4**	**1987**
9	**71.3**	**2011**
10	**71.0**	**1983**

Muskegon Top 10 Warmest Summers

Rank	Value Date	
1	72.6	2010
2	72.4	2012
3	71.9	1995
4	71.6	1955
5	71.6	2005
6	71.4	2011
7	71.3	1988
8	70.9	1983
9	70.7	1949
10	70.6	1959,2002

Below are links to the summer climate summaries for Grand Rapids, Lansing and Muskegon:

Grand Rapids Climate Summary for the Summer of 2012

Lansing Climate Summary for the Summer of 2012

Muskegon Climate Summary for the Summer of 2012

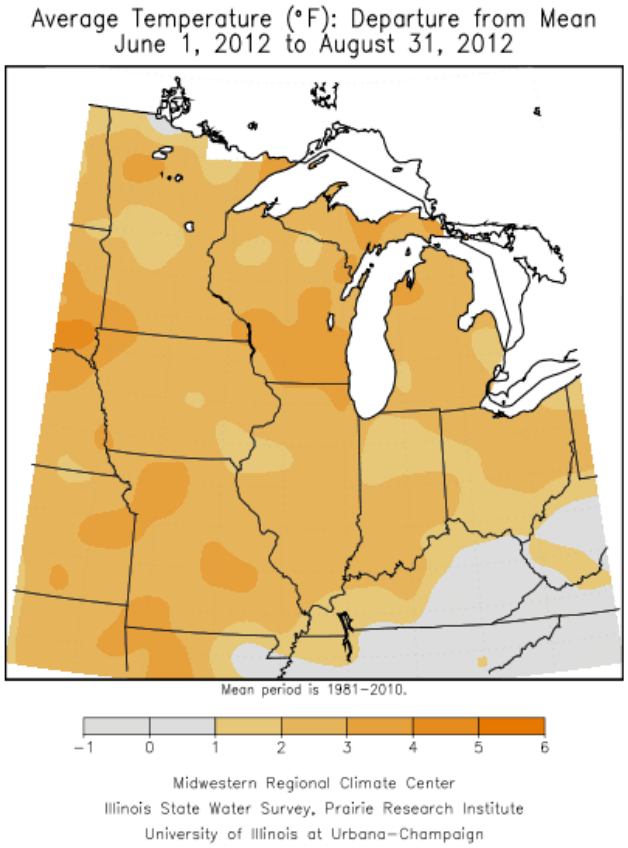


Figure 1. Average temperature anomaly for the summer of 2012 across the Great Lakes and Midwest.

Temperatures averaged above normal across the western Great Lakes and northern Midwest. Most of Southwest Lower Michigan averaged between 4 degrees and 5 degrees above normal.

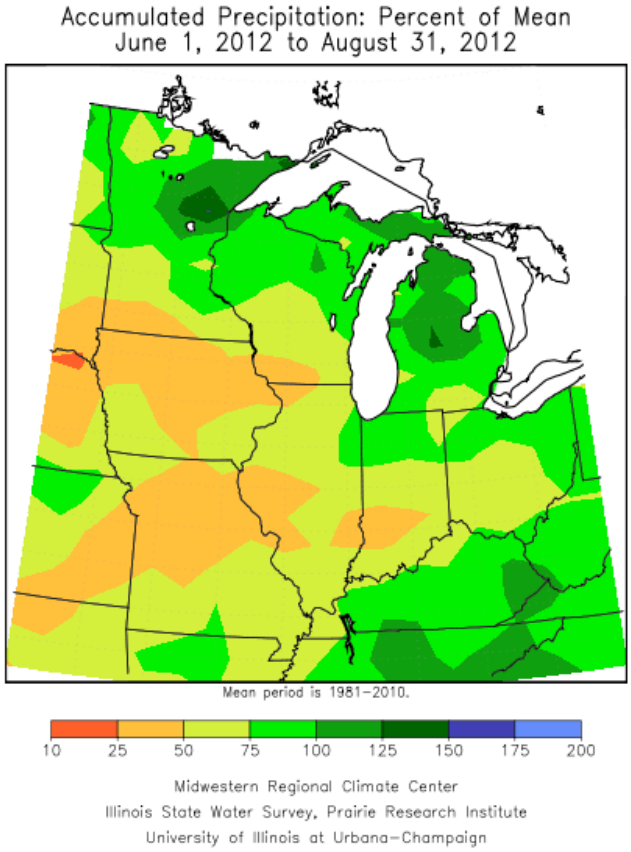
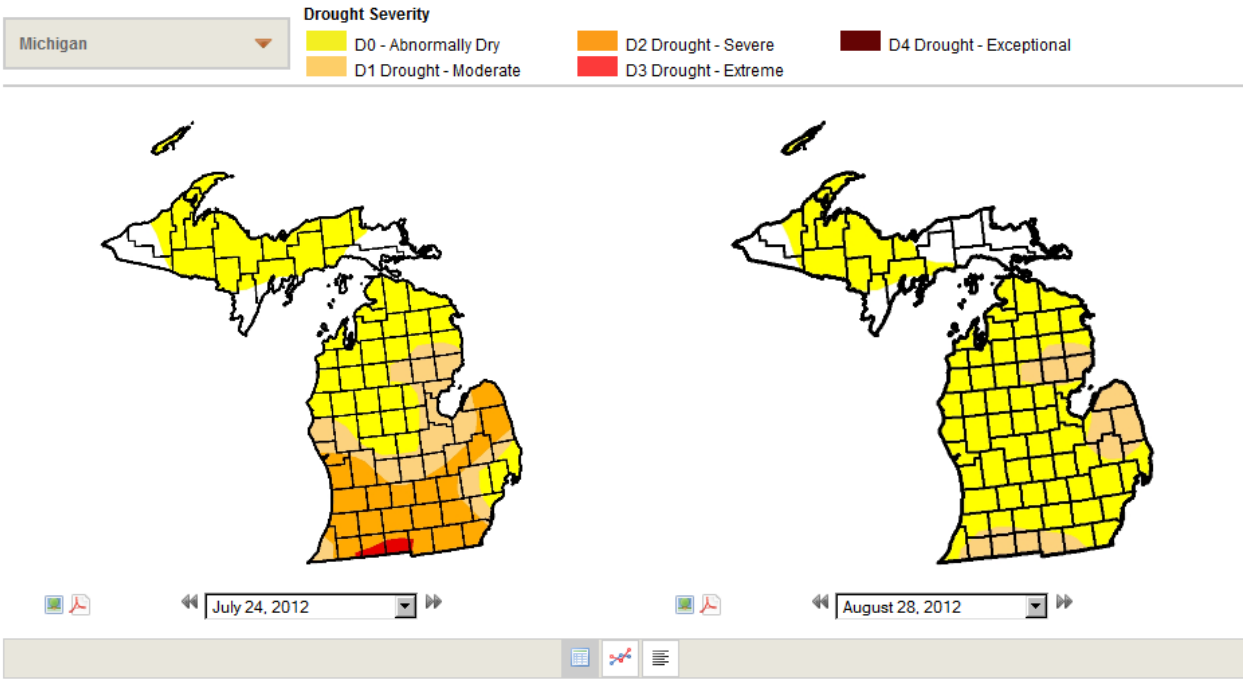


Figure 2. The accumulated precipitation percent departure from normal for the summer of 2012 across the Great Lakes and Midwest.

The rainfall anomaly for this summer was greatest south of Michigan. For Southwest Lower Michigan, the rainfall anomaly was mostly below 75 percent of normal south of Interstate 94. Areas north of Interstate 96 were near normal. The combination of hot temperatures and the lack of significant rainfall resulted in drought across all of Southwest Michigan but areas south of I-94 had the most significant drought. The drought was at its greatest extent during the last two weeks of July. After that, the frequency of rainfall events increased.



Week	Nothing	D0-D4	D1-D4	D2-D4	D3-D4	D4
July 24, 2012	8.84	91.16	43.02	24.51	1.13	0.00
August 28, 2012	13.83	86.17	14.36	0.00	0.00	0.00

Figure 3. The Drought Severity over Michigan when the extent was the greatest (week of July 24th) and what it had diminished to by the end of August.